[redacted] 25X1

[redacted] 25X1

December 8, 1955

[redacted] 25X1

Subject: Contract RD-91-SA, [redacted], Proposal for Increased Scope. 25X1

Enclosures: (1) Technical Action Request (4 copies)
(2) [redacted] Quotation 591-B 25X1
(3) Technical Proposal No. 716 (4 copies)
(4) Price Analysis

Gentlemen:

In conformance with several recent technical discussions, we are submitting herewith our proposal (enclosures 1 through 4 above) to affect two engineering additions to the equipment being developed under the subject contract.

The first of these changes is the addition of a band-pass filter system for bands 1 through 6 as described in enclosure 3, together with spare parts for the filter system. The second change covers the design and construction of a test and calibration system to be used on bands 1 through 8, together with spare parts for the test and calibration system.

A change in bands has been discussed. This change in bands is made necessary to bring the size of the lowest band antenna to a more workable size commensurate with the present state of the antenna design art. The contemplated bands of 70 - 170 mc, 170 - 400, 400 - 1000, 1000 - 2200, 2200 - 4500, 4500 - 10,000, 10 Kmc - 20 Kmc. 20 Kmc - 40 Kmc, results in the elimination of one band and the associated antennas.

The test and calibration system, however, will still cover all frequencies from 50 to 40,000 megacycles, and the filter system on the lowest band (70 - 170 mc) will be designed to extend to 50 mc. Thus strong signals below the contemplated low band (70 - 170 mc) may still be received and analyzed. Also the equipment will be available for future use, should advances in the antenna art make a lower frequency antenna feasible within present size limitations.

Elimination of the one set of antennas results in a decrease in contract price. We have taken this decrease into account in making the present proposal. Therefore, the prices shown are the net prices covering the effect of the price increase due to the two added engineering changes, and the decrease due to the elimination of a set of antennas.

Very truly yours,

[redacted]

25X1

JAC:is

 25X1

[redacted]

QUOTATION

TO: [redacted] 25X1

SECRET

We offer the following quotation for acceptance within 30 days from this date.

Date December 8, 1955

591-B

Item	Description	Price
1.	Incorporate band-pass filter system for bands 1 through 6 as described in Technical Proposal No. 716 in the three systems to be delivered under the contract.	$14,807
2.	Spare parts for Item 1	$ 3,075
3.	Design and construct a test and calibration system to be used on bands 1 through 8	$29,889
4.	Spare parts for Item 3	$ 2,785
		$50,556

Delivery:

Items 1 and 3 above will be incorporated with equipments to be delivered under the contract. Spare parts (items 2 and 4) will be delivered concurrent with the equipment. By virtue of addition of Items 1 through 4 the following will be the new delivery schedule:

System #1 - April 30, 1956 (Assuming authorization to Proceed by 12/15/55)
System #2 - June 15, 1956
System #3 - August 1, 1956

Conditions:

(1) Overtime approval in the amount set forth in the attached price analysis.

(2) Award be an amendment to contract RD-91-SA or contain clauses and conditions thereof insofar as applicable.

[redacted] 25X1

SECRET

[redacted]

25X1

Price Analysis
591-B

Description	Item 1 - Equipment		
Direct Labor	**Man Months**	**Rate**	**Amount**
Section Engineers	.1	880	$ 88
Project Engineers	.2	665	133
Senior Engineers	.2	560	112
Junior Engineers	.5	465	233
Total	1.0		$ 566
Overtime Premium (2% of Direct Labor)			11
Overhead (173 hours @$2.20 per hour)			381
Outside Services - Subcontracts			12,088
Total Cost Less G & A, etc.			13,046
G & A (6.073% of Cost)			792
Total Cost Including G & A, etc.			13,838
Fixed Fee (7% of Cost)			969
		TOTAL PRICE	$ 14,807

25X1

Price Analysis
591-B

Item 2 - Spares

	Amount
Material	$2,709
Total Cost Less G & A, etc.	2,709
G & A (6.073% of Cost)	165
Total Cost Including G & A, etc.	2,874
Fixed Fee (7% of Cost)	201
TOTAL PRICE	$ 3,075

SECRET

25X1

Price Analysis
591-B

Description — Item 3 - Equipment

Direct Labor	Man Months	Rate	Amount
Section Engineers	.2	$880	$ 176
Project Engineers	.5	665	333
Senior Engineers	.9	560	504
Junior Engineers	.9	465	419
Technicians	1.4	325	455
Model Shop Men	.5	420	210
Design Draftsmen	1.2	540	648
Detail Draftsmen	.7	310	217
TOTAL	6.3		$2962
Overtime Premium (2% of Direct Labor)			59
Overhead (1090 hrs. @ $2.20 per hr.)			2398
Material			550
Outside Services - Subcontracts			20366
Total Cost Less G & A			$26335
G & A (6.073% of Cost/Sales)			1599
Total Cost Including G & A			$27934
Fixed Fee (7% of Cost)			1955
TOTAL PRICE			$29889

25X1

Price Analysis
591-B

Item 4 - Spares

	Amount
Material	$2,454
Total Cost Less G & A, etc.	2,454
G & A (6.073% of Cost)	149
Total Cost Including G & A, etc.	2,603
Fixed Fee (7% of Cost)	182
TOTAL PRICE	$ 2,785

3. CONTRACT NO. (S) RD-91-SA	**TECHNICAL ACTION REQUEST**	1. REQUEST NO. 1
4. SPECIFICATION NO. (S)	SHEET 1 OF SHEETS	2. DATE 11/29/55
5.		
6.		
9. EQUIPMENT Passive Intercept Receiver		10. QUANTITY AFFECTED Three (3)

11. PURPOSE [X] APPROVAL [ ] INTERPRETATION [ ] INFORMATION [X] RECOMMENDATION

12. APPROVAL WILL AFFECT: PRICE (INCREASE [redacted] DELIVERY [redacted]
(If Price, Delivery or Interchangeability is affected, explain below)

CAUTION: INCREASE IN PRICE AND/OR CHANGE IN CONTRACT DELIVERY SCHEDULE REQUIRES APPROVAL OF THE CONTRACTING OFFICER.

ACTION I

1. Increase scope of subject contract to include, in Contract Item No. 1, for each of the three (3) Engineering Models, the following requirement:

   Incorporate band-pass filter system for bands 1 through 6, inclusive, as described in the [redacted] Technical Proposal No. 716.

   Total cost for Action 1 on three equipments $14,807

2. Increase scope of subject contract to include, in Contract Item No. 2, spare parts for the added band-pass filter system (paragraph 1, above).
   Total cost for Action 1 spares . . . . . $ 3,075

3. This addition to the contract is recommended because:

3.1 It provides for separation of received signals into respective bands and thereby obtain positive identification of the frequency band of the unknown signal.

3.2 It provides for improved reception of weak signals in an adjacent band to a strong signal that might otherwise obscure the weak signal.

3.3 It provides for improved means of equalizing the gain in each quadrant of the Antenna-Receiving system.

4. Delivery - Approval of Action 1 and Action II will extend the delivery date of the first system to April 30; system #2 45 days following the delivery of the first system; and system #3 90 days following delivery of the first system. This assumes that approval is obtained on or about December 15.

3. CONTRACT NO. (S) RD-91-SA	TECHNICAL ACTION REQUEST	1. REQUEST NO. 1
4. SPECIFICATION NO. (S) [redacted] #651	SHEET 1 OF SHEETS	2. DATE 11/29/55

25X1

ACTION II

1. Increase scope of subject contract to include, in Contract Item No. 1, for each of the three (3) Engineering Models, the following requirement:

   Design and construct a test and calibration system to be used on bands 1 through 8, inclusive, as described in [redacted] Technical Proposal No. 716.

25X1

   Total cost for Action II on three equipments $29,889

2. Increase scope of subject contract to include, in Contract Item No. 2, spare parts for the added test and calibration system (paragraph 1, above). Total cost for Action II spares . . . . . $ 2,735

3. This addition to the contract is recommended because:

   3.1 It provides a rapid pre-operational check on the performance of the receiving system. The sensitivity and equalization of gain can be determined very quickly before the equipment is used.

   3.2 It provides a means for equalizing the gain in each quadrant of the receiving system, thereby improving the direction determining ability.

   3.3 It provides a built-in signal source for convenient maintenance and calibration.

25X1

Approved [redacted]

Section Engineer